

REMARKS

Claims 1-6 are now pending in the application. Claims 1-5 stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

APPLICANTS' INTERVIEW SUMMARY

Applicants thank the Examiner for speaking with the undersigned on Wednesday, January 18, 2006. During the conversation, the cited art was discussed. The Examiner agreed that Wetteborn (U.S. Pat. No. 5,949,530; hereinafter "Wetteborn") did not appear to disclose a control system, as claimed in Applicants' Claim 1; and, thus, an agreement was reached with regard to the applicability of Wetteborn to independent Claim 1.

DRAWINGS

The undersigned gratefully acknowledges the acceptance of the drawings filed with this application on March 2, 2004.

ALLOWABLE SUBJECT MATTER

The undersigned gratefully acknowledges the allowance of Claim 6.

INFORMATION DISCLOSURE STATEMENT

The Examiner noted that "[t]he listing of references in the specification is not a proper Information Disclosure Statement." In response thereto, Applicants attach an

Information Disclosure Statement and Form 1449, as well as the fee associated therewith.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 2, 4, and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bateman (U.S. Pat. No. 3,937,575; hereinafter "Bateman") in view of Wetteborn. Claim 3 stands rejected as being unpatentable over Bateman in view of Wetteborn as applied to Claim 1, and further in view of Meinzer (U.S. Pat. No. 5,267,016; hereinafter "Meinzer"). These rejections are respectfully traversed.

At the outset, Applicants note that independent Claim 1 recites:

a control subsystem responsive to said second portion of said optical energy for determining a repetition period between said optical pulses, and for applying a signal to said oscillator to adjust said controlled repetition rate,

said first portion of said optical energy being reflected by said target back to said optical subsystem for use to control the generation of subsequent optical pulses from said oscillator in relation to a round trip time of flight of said optical pulses between said apparatus and said target, said time of flight being used to extrapolate a distance between said laser oscillator and said target. (emphasis added)

Applicants also note that independent Claim 5 recites:

using said second portion of said optical energy to determine a repetition rate of said optical pulses;

using said determined repetition rate to adjust a repetition rate of subsequently generated optical pulses;

collecting at least a portion of said first portion said optical energy reflected from said target and using said collected optical energy to further control the generation of said subsequent relaxation oscillations, and therefore subsequent optical pulses, in relation to a round trip time of

flight of said collected optical energy between said apparatus and said target; and

using said round trip time of flight to calculate said distance between said apparatus and said target. (emphasis added)

Applicant respectfully asserts that these features as claimed are not taught or suggested whatsoever by Bateman, Wetteborn or Meinzer, either alone or in combination.

With reference to Bateman, Bateman appears to disclose a system for determining a distance between a target T and a laser diode 10 determined by the time it takes for a pulse of the laser diode 10 to be emitted and reflected back to the laser diode 10 so that the laser diode 10 senses its own returned energy (see at least Column 3, Lines 20-30 and Column 4, Lines 50-56). When the laser diode 10 senses its own returned energy, a timer TM stops to provide an indication as to the distance of the object from the laser diode 10. Bateman does not disclose whatsoever a control subsystem for determining a repetition period between optical pulses and for applying a signal to an oscillator to adjust a controlled repetition rate, nor using a reflection from a target to control the generation of subsequent optical pulses, as claimed in Applicants' application. Wetteborn and Meinzer do not remedy these shortcomings of Bateman.

With reference to Wetteborn, Wetteborn appears to disclose the use of a timer activated by a light pulse 12 and deactivated by a returned light pulse 12' to calculate the range D of the object from the relevant pulse transit time T (see at least Column 5, Lines 55-68). The received light pulses 12' are detected by a photodetector 23, which generates an electric signal that is subsequently supplied to a comparator 34. The comparator 34 determines the transit time measurements (see at least Column 5, Lines

20-30). Thus, as discussed with the Examiner, Wetteborn also does not disclose a control subsystem for determining a repetition period between optical pulses and for applying a signal to an oscillator to adjust a controlled repetition rate, nor using a reflection from a target to control the generation of subsequent optical pulses, as claimed in Applicants' independent Claim 1.

With regard to Meinzer, Applicants' respectfully submits that it is improper to combine Bateman and Wetteborn with Meinzer, as neither Bateman nor Wetteborn teach or suggest the desirability of using an optical beam splitter. Further, the use of an optical beam splitter would impermissibly modify the method of operation of Bateman and Wetteborn.

Accordingly, for at least these reasons, Applicants respectfully submit that independent Claims 1 and 5 are patentable and in condition for allowance. As Claims 2-4 depend from independent Claim 1, Applicants also believe that Claims 2-4 are patentable and in condition for allowance.

Reconsideration and withdrawal of these rejections are respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner

believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: January 20, 2006

By: 

Mark D. Elchuk, Reg. No. 33,686
Erica K. Schaefer, Reg. No. 55,861

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

MDE/EKS/lf-s

G:\eschaefe\7784\000600-699\000672 CPA\Amendment due 1-20-06 + Supp IDS\Amendment.doc